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PAR 248A

Photographic Enlarger Maintenance

20 June 1969

PROJECT AUTHORIZATION REQUEST

PAR 249A

20 Jun 69

SUBJECT: Photographic Enlarger Maintenance

TASK/PROBLEM

1. Provide photographic enlarger maintenance at the customer's facility for two Precision Enlargers (BPE) and four 10-20-40X Enlargers.

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PROPOSAL

2. It is proposed that the schedules for monthly, two-monthly and six-monthly preventive maintenance currently in effect on enlargers be continued for 12 months beginning 1 July 1969. Contractor personnel will perform such maintenance on the one BPE and the four 10-20-40X Enlargers currently at the customer's facility. An additional BPE is scheduled for installation there in the Fall of 1969; it will be added to the preventive maintenance schedule at that time. The check lists used for preventive maintenance are attached. Daily and weekly internal maintenance items on the BPE check list are not considered part of the proposed effort.

3. If the customer so requests, contractor personnel will investigate problem areas not indicated on the Preventive Maintenance Check Lists and make necessary minor modifications/adjustments.

4. If approved, this project will become active on 30 June 1969, and will continue for 12 months unless, prior to that time, funds are exhausted or the PAR is terminated.

5. No final report will be submitted. The periodic effort described above will be documented in Monthly and Quarterly Reports.

20 Jun 69

PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST

PRECISION ENLARGER

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Assigned to: _____ Date: _____ Machine Serial No. _____

✓	Item	Description
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Daily Interval

1	Check the four indicator lamps on the sub-control panel.
2.1	Check closed-negative-gate interlock.
2.2	Check interlock that causes vertical transport slow speed.
2.3	Check interlock that disables negative transport after fluid injection.
2.4	Check operation of microswitch that functions when manual-film-movement knob is pushed in.
3.1	Check the indicator lamps for the two attenuator banks of the easel photometer.
3.2	Check the meter scale illuminator lamp of the easel photometer.
3.3	Check the antifatigue lamp in photo-multiplier tube housing.
4	Clean the glass plates of the negative gate.

One-Week Interval

1	Vacuum-clean the enlarger.
2	Check, and if necessary, clean the objective lenses and all glass filters.
3	Vacuum-clean the front surface of the easel.
4	Check the fiber optics for broken fibers.

✓	Item	Description
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One-Month Interval

1	Wax the steel rails of the lens ramp and of the easel.
2	Install new air filter in lamphouse.
3	Clean the nylon brushes of the fluid removal system.
4	Check all tubing and hoses for cracks and air leakage.
5	Check and, if necessary, clean the lenses of the condenser lens assemblies.

Six-Month Interval

1.1	Make a photographic check on all six matching sets of objective and condenser lens assemblies.
1.2	Be sure that film is tracking properly in both directions on the negative transport system.
2	Check the timing belts of the film transport system, of the vertical drive system, and of the easel drive assembly for wear.

REMARKS:

Checked by: _____ Date: _____

20 Jun 69

PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST **TWO-MONTH INTERVAL**

PRECISION ENLARGER, 10-20-40X

Assigned To: _____

Date: _____

Machine Serial No. _____

✓	Item	Description	✓	Item	Description
	1	Film Transport		8	Vacuum Pump Assembly
	1.1	Static Removal Unit		8.1	Hoses and Couplings
	1.2	Guide Roller Flanges		8.2	Pump
	1.3	Air Knives		8.3	Oil Level
	1.4	Belts and Pulleys		9	Lamp House Assembly
	1.5	Lubricate Bearings		9.1	Housing
	2	Easel and Stencil Assembly		9.2	Filter (Photographic)
	2.1	Easel		9.3	Light Leaks
	2.2	Air Pressure System		9.4	Lamp House Blower
	3	Illuminator		10	Immersion System
	3.1	Glass		10.1	Ejectors
	3.2	Lamps		10.2	Hoses and Couplings
	4	Negative Gate Interlock		10.3	Blower
	5	Lenses		10.4	Fluid Level
	6	Stripper Plate		11	Lamp House Control
	7	Air Pressure System		12	Analyzer
	7.1	Air Lines		13	Photo Check
	7.2	Compressor Control		13.1	Resolution
	7.3	Relief Valve		13.2	Uniformity
	7.4	Regulator		14	General Inspection
	7.5	Filter-Compressor			
	7.6	Drain Storage Tank			

Initials _____

Form No. MS-103

March 26, 1966